GOVERNMENT OF INDIA
POWER
LOK SABHA

UNSTARRED QUESTION NO:601
ANSWERED ON:23.07.2015
Pollution from Thermal Power Plants
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Will the Minister of POWER be pleased to state:

(a) whether it is a fact that the thermal power plants in the country are polluting environment due to excessive emission of gases and are also consuming large quantity of water; and

(b) if so, the details thereof and the steps being taken by the Government in this regard?

Answer

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : CO_2 emissions from Indian power sector as monitored by Central Electricity Authority during last five years is as under:

Year	Total CO_2 Emission in Million Tonnes	Specific CO_2 emission in Kg/kWh
2009-10	580.0	1.07
2010-11	597.7	1.06
2011-12	637.3	1.05
2012-13	696.3	1.04
2013-14	727.4	1.03

Though the total CO_2 emissions are increasing due to large capacity additions of coal based plants in the country, however, the specific CO_2 emissions from these plants are showing a decreasing trend.

Coal based thermal power stations in India require relatively higher quantity of consumptive water because of high ash content of Indian coals and high ambient temperature conditions. Plant consumptive water requirement is governed by a number of factors such as quality of raw water, type of condenser cooling system, quality of coal, ash utilization, type of ash disposal system, waste water management aspects etc.
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(b) : The Government of India has taken following steps to reduce CO_2 emission and water consumption from coal based thermal power plants:

(i) Adoption of more efficient Supercritical Technology for Thermal Power generation resulting in less specific coal consumption (Kg/Kwh) and thereby reducing CO_2 emissions and water consumption.

(ii) Phased retirement of inefficient and old thermal power generation units is being taken up. A capacity of about 3100 MW has already been retired.

(iii) Government has planned a capacity addition of 1,75,000 MW from renewable sources by 2022.

(iv) Perform Achieve and Trade (PAT) Scheme under National Mission on Enhanced Energy Efficiency (NMEEE) is under implementation by Bureau of Energy Efficiency (BEE). In this scheme, individual target for improving energy efficiency has been assigned to 144 thermal power stations in the country. The incremental efficiency of these thermal power stations will lead to reduction in fossil fuel consumption and thereby reducing CO_2 emissions.

(v) Measures like zero liquid discharge stipulations by MOE&F, use of washed coal with lower ash content, better O&M practices etc. have led to the specific water consumption for coal based plants gradually coming down from a high of 5-7 m3/h per MW in the past to about 3 m3/h per MW presently.

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